

# ***HOSPITAL COSTS IN RHODE ISLAND***

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## ***INTRODUCTION: HOSPITAL COSTS***

This Report utilizes two national databases (i.e., American Hospital Association, and HCIA, Inc.) to compare 1998 acute care, community hospital costs in RI with those in the other states, the nation, and the New England region. Hospital services are the largest component of national healthcare expenditures<sup>1</sup>, and their costs impact everyone. Expensive hospital services can inflate insurance premiums, which could cause employers on the margin to drop health benefits or price individuals out of the market altogether. On the other hand, less expensive services could provide a competitive advantage for RI businesses, all else being equal.

The 1998 data indicate that RI had the 10<sup>th</sup> highest hospital expenses per-capita but the 20<sup>th</sup> lowest expenses per unit of service. Reconciling these two apparently conflicting statistics, was the 5<sup>th</sup> highest hospital outpatient utilization in the country. On the revenue side, RI hospitals received the 14<sup>th</sup> lowest payor reimbursement per unit of service of all states in the U.S.

A distinction is made between the different types of costs evaluated here. **Per-capita expenses** are the total hospital expenses in the state, reported on a per person basis. **Expenses per adjusted discharge** are the costs incurred by hospitals from providing one unit of healthcare service. **Reimbursement per adjusted discharge** is the payment hospitals received from all payors (third parties and patients) for one unit of these services. The adjusted discharge<sup>2</sup> is the preferred measure of comparison for examining unit-costs because it accounts for all of the activity at the hospital (both inpatient and outpatient<sup>3</sup>). Both the 'reimbursement per adjusted discharge' and the 'expense per adjusted discharge' statistics are case-mix adjusted to remove differences in the nature of hospital services utilized between states<sup>4</sup> (or between hospitals).

Generally, hospitals have more control over expenses than they do reimbursement. With the exception of some fixed expenses (depreciation, interest, utilities, etc.), most other costs are either variable or semi-fixed, and may be changed according to demand (patient volume). Reimbursement, however, is a more complex interaction of each hospital's expense structure, payor mix, charity care, market position and negotiating skills.

Table I presents the 1998 per-capita hospital expenses by state. Rhode Island had the 10<sup>th</sup> highest per-capita expense (\$1,293) in the country. This amount, however, was 9 percent less than the New England rate (\$1,415), which itself was primarily affected by Massachusetts' large expenditures (\$1,678).

**TABLE 1: 1998 HOSPITAL EXPENSES PER-CAPITA**

	Per-Capita Hospital Expenses	State Ranking (Greatest to Least Amounts)
Massachusetts	\$1.678	1
North Dakota	\$1.649	2
New York	\$1.610	3
Pennsylvania	\$1.463	4
Missouri	\$1.393	5
West Virginia	\$1.367	6
Louisiana	\$1.345	7
Michigan	\$1.316	8
Delaware	\$1.294	9
<i>Rhode Island</i>	<i>\$1.293</i>	<i>10</i>
Illinois	\$1.284	11
New Jersey	\$1.283	12
Ohio	\$1.281	13
South Dakota	\$1.252	14
Connecticut	\$1.240	15
Maine	\$1.229	16
Indiana	\$1.219	17
Kentucky	\$1.217	18
Iowa	\$1.206	19
Tennessee	\$1.203	20
Nebraska	\$1.196	21
Alabama	\$1.171	22
Mississippi	\$1.141	23
Montana	\$1.139	24
South Carolina	\$1.134	25
Wisconsin	\$1.130	26
Florida	\$1.122	27
Minnesota	\$1.114	28
North Carolina	\$1.109	29
Arkansas	\$1.104	30
New Hampshire	\$1.055	31
Texas	\$1.042	32
Georgia	\$1.038	33
Maryland	\$1.033	34
Kansas	\$1.032	35
Hawaii	\$1.013	36
California	\$985	37
Vermont	\$969	38
Oklahoma	\$961.4	39
Alaska	\$961.2	40
Colorado	\$956	41
Oregon	\$943	42
Virginia	\$927	43
Washington	\$921.1	44
New Mexico	\$920.7	45
Wyoming	\$895	46
Arizona	\$888	47
Utah	\$870	48
Idaho	\$818	49
Nevada	\$797	50
New England	\$1.415	
United States	\$1.180	

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### ***HOSPITAL EXPENSES PER UNIT OF SERVICE***

Promoting the competitiveness of hospital care requires it be consistently delivered less expensively with the same or better quality than elsewhere. Table 2 examines hospital expenses per adjusted discharge, by state. Again, the adjusted discharge encompasses all activity in a hospital, both inpatient and outpatient. Unlike per-capita expenses, which are a function of both unit-costs and utilization, the expense per adjusted discharge reflects only cost differences. This allows for a more valid cost comparison between hospitals.

In 1998, Rhode Island hospitals incurred \$5,025 in expenses, in aggregate, per adjusted discharge (case-mix adjusted). This amount was the 31<sup>st</sup> highest of all states, 6 percent less than the national rate (\$5,318), and the least expensive in New England. Further, on an unadjusted basis, RI had the 23<sup>rd</sup> highest unit-costs in the country.

**TABLE 2: 1998 HOSPITAL EXPENSES PER (ADJ.) DISCHARGE**

	Unadjusted Expense per (Adj.) Discharge	State Ranking (Greatest to Least Amounts)	Medicare Case-Mix Index	Case-Mix Adjusted Expense per (Adj.) Discharge	State Ranking (Greatest to Least Amounts)
Alaska	\$8,904	1	1.1841	\$7.520	1
New York	\$8,732	2	1.2958	\$6.739	2
North Dakota	\$6,888	11	1.0447	\$6.593	3
Hawaii	\$8,644	3	1.3404	\$6.449	4
Massachusetts	\$8,080	5	1.2878	\$6.275	5
Nebraska	\$6,760	13	1.0810	\$6.253	6
Connecticut	\$8,107	4	1.3769	\$5.888	7
Minnesota	\$6,704	16	1.1525	\$5.817	8
Michigan	\$7,014	9	1.2547	\$5.590	9
Wisconsin	\$6,610	20	1.1884	\$5.562	10
Maine	\$6,605	21	1.1958	\$5.524	11
Illinois	\$6,944	10	1.2571	\$5.523	12
South Dakota	\$6,496	24	1.1822	\$5.495	13
New Jersey	\$7,221	8	1.3236	\$5.456	14
Vermont	\$6,650	17	1.2285	\$5.413	15
Kansas	\$5,772	40	1.0739	\$5.375	16
South Carolina	\$6,414.6	26	1.1990	\$5.350	17
Missouri	\$6,534	22	1.2221	\$5.347	18
Delaware	\$7,482	6	1.4006	\$5.342	19
California	\$7,281	7	1.3646	\$5.336	20
Indiana	\$6,258	29	1.1853	\$5.280	21
Pennsylvania	\$6,728	14	1.2754	\$5.275	22
Georgia	\$6,286	27	1.2038	\$5.222	23
Montana	\$6,062	34	1.1700	\$5.181	24
Ohio	\$6,620	18	1.2995	\$5.094	25
North Carolina	\$6,099	32	1.1996	\$5.085	26
New Hampshire	\$6,414.8	25	1.2641	\$5.075	27
Maryland	\$6,711	15	1.3242	\$5.068	28
Washington	\$6,847	12	1.3555	\$5.051	29
Iowa	\$5,479	45	1.0852	\$5.048	30
<i>Rhode Island</i>	\$6.523	23	1.2981	\$5.025	31
Texas	\$6,277	28	1.2574	\$4.992	32
Colorado	\$6,615	19	1.3542	\$4.885	33
Wyoming	\$5,738	41	1.1799	\$4.863	34
Oregon	\$6,083	33	1.2615	\$4.822	35
Mississippi	\$5,102	49	1.0647	\$4.792	36
Kentucky	\$5,616	42	1.1732	\$4.787	37
Tennessee	\$5,804	39	1.2237	\$4.743	38
Louisiana	\$6,111	31	1.2884	\$4.743	39
Virginia	\$5,846	38	1.2506	\$4.675	40
Oklahoma	\$5,483	44	1.1896	\$4.609	41
Alabama	\$5,464	46	1.1989	\$4.558	42
New Mexico	\$5,566	43	1.2310	\$4.521	43
Utah	\$5,991	35	1.3544	\$4.424	44
Arkansas	\$5,029	50	1.1410	\$4.408	45
Arizona	\$5,928	36	1.3656	\$4.341	46
Florida	\$5,921	37	1.3748	\$4.307	47
West Virginia	\$5,273	48	1.2276	\$4.295	48
Idaho	\$5,424	47	1.2887	\$4.209	49
Nevada	\$6,196	30	1.5132	\$4.095	50
<b>New England</b>	\$7,653		1.2685	\$6.033	
<b>United States</b>	\$6,702		1.2602	\$5.318	

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### ***HOSPITAL UTILIZATION***

Reconciling the relatively high per-capita expenses, and the low unit-expenses suggests there was higher hospital utilization in RI than elsewhere. Table 3 supports this explanation, and provides comparative utilization rates for both inpatient and outpatient services. The data indicate that higher outpatient utilization in RI was primarily responsible for the relatively high per-capita hospital expenses in state. Higher utilization was not unexpected given the large elderly population locally (these statistics were not age-adjusted).

Inpatient utilization in RI (118.7 inpatient discharges per 1,000 population) approximated the National rate (117.7 per 1,000). RI's ranking was also close to the National median. On a Regional basis, RI was 7 percent above the New England rate (110.9 per 1,000), and trailed only Massachusetts that had the highest inpatient utilization (120.1 per 1,000).

Outpatient hospital utilization in RI (79.6 outpatient equivalent discharges<sup>5</sup> per 1,000 population) was the 5<sup>th</sup> highest in the country. RI's rate was 36.5 percent higher than the National rate (58.3 per 1,000) and 7.4 percent higher than the Regional rate (74.1 per 1,000). Massachusetts was the only other New England state with higher outpatient utilization (87.6 per 1,000).

TABLE 3: 1998 HOSPITAL UTILIZATION RATES

INPATIENT SERVICES			OUTPATIENT SERVICES		
	Inpatient Discharges per 1,000 Population	State Ranking (Greatest to Least Amounts)		Outpatient (Equivalent) Discharges per 1,000 Population	State Ranking (Greatest to Least Amounts)
West Virginia	155.0	1	North Dakota	106.1	1
Mississippi	150.4	2	West Virginia	104.3	2
Alabama	148.0	3	Iowa	89.4	3
Pennsylvania	146.0	4	Massachusetts	87.6	4
Louisiana	146.0	5	<i>Rhode Island</i>	79.6	5
Arkansas	141.1	6	Arkansas	78.5	6
Kentucky	140.1	7	Montana	77.4	7
Tennessee	137.2	8	Missouri	76.8	8
Missouri	136.4	9	Kentucky	76.6	9
North Dakota	133.5	10	Indiana	75.4	10
New Jersey	133.4	11	Michigan	75.1	11
Iowa	130.8	12	New Mexico	74.5	12
Florida	130.5	13	Louisiana	74.0	13
South Dakota	130.2	14	Mississippi	73.1	14
New York	130.1	15	Ohio	72.6	15
Illinois	121.7	16	New Hampshire	72.5	16
Ohio	120.9	17	Pennsylvania	71.5	17
North Carolina	120.3	18	Maine	70.1	18
Massachusetts	120.1	19	Tennessee	70.0	19
Indiana	119.4	20	Alabama	66.3	20
South Carolina	119.2	21	Wisconsin	64.9	21
<i>Rhode Island</i>	118.7	22	Wyoming	64.8	22
Oklahoma	116.9	23	Kansas	64.7	23
Maine	116.0	24	Illinois	63.2	24
Nebraska	115.6	25	South Dakota	62.6	25
Kansas	114.0	26	North Carolina	61.4	26
Delaware	113.3	27	Nebraska	61.3	27
Texas	112.7	28	Vermont	61.0	28
Michigan	112.5	29	Oregon	59.6	29
Montana	110.6	30	Delaware	59.5	30
Maryland	110.0	31	Florida	59.0	31
Minnesota	109.2	32	Oklahoma	58.4	32
Georgia	107.5	33	Georgia	57.6	33
Arizona	106.1	34	South Carolina	57.5	34
Wisconsin	106.0	35	Minnesota	57.1	35
Virginia	105.6	36	Idaho	57.0	36
Connecticut	100.8	37	New York	54.3	37
Nevada	98.0	38	Utah	53.6	38
California	97.1	39	Texas	53.2	39
Oregon	95.5	40	Virginia	53.0	40
Colorado	94.0	41	Connecticut	52.2	41
Idaho	93.8	42	Washington	51.1	42
New Hampshire	91.9	43	Colorado	50.6	43
Utah	91.6	44	New Jersey	44.2	44
Wyoming	91.1	45	Maryland	44.0	45
New Mexico	90.9	46	Arizona	43.7	46
Vermont	84.7	47	Alaska	40.7	47
Washington	83.4	48	California	38.2	48
Hawaii	81.9	49	Hawaii	35.2	49
Alaska	67.3	50	Nevada	30.6	50
New England	110.9		New England	74.1	
United States	117.7		United States	58.3	

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### ***HOSPITAL REIMBURSEMENT PER UNIT OF SERVICE***

Table 4 presents 1998 hospital reimbursement per unit of service (from all payors), by state. Rhode Island hospitals received \$4,829, in aggregate, per adjusted discharge (case-mix adjusted). This amount was the 37<sup>th</sup> highest of all states and 7 percent less than the national rate (\$5,165). RI was the lowest reimbursed state in New England, 10.6 percent under the regional amount of \$5,401. On an unadjusted basis, RI received the 28<sup>th</sup> highest reimbursement of all states, and the lowest in New England.

Unlike the unit-expense comparisons in Table 2, these unit-reimbursement comparisons were influenced by the payor mix, and amount of charity care provided in each state. For example, some payors reimburse hospital services more generously than others do, so a higher mix of these payors would inflate the global reimbursement figures. Likewise, charity care does not generate reimbursement, but it is included as a unit of service and it incurs expenses. All else being equal, a greater volume of charity care will depress the unit-reimbursement statistics. Therefore, even though there was lower reimbursement in RI overall, that does not necessarily mean that RI hospitals received less reimbursement from individual payors for similar services than elsewhere

Tables 2 and 4 illustrate the interrelationship between reimbursement and expenses. Four of the five highest reimbursed states (Alaska, North Dakota, New York and Hawaii) were also among the top five most expensive. Likewise, four of the five lowest reimbursed states (Nevada, Florida, West Virginia and Arizona) ranked among the five least expensive.

This association is not coincidental. Hospitals, to the extent they can affect reimbursement<sup>6</sup>, simply cannot afford to accept rates below their costs for any length of time. Likewise, private payors are indisposed to reimburse hospitals much above the cost (expense) of services. In a competitive marketplace, this healthy balance will prevail.

TABLE 4: 1998 HOSPITAL REIMBURSEMENT PER (ADJ.) DISCHARGE

	Unadjusted Reimbursement per (Adj.) Discharge	State Ranking (Greatest to Least Amounts)	Medicare Case-Mix Index	Case-Mix Adjusted Reimbursement per (Adj.) Discharge	State Ranking (Greatest to Least Amounts)
Alaska	\$9,446	1	1.1841	\$7.977	1
Nebraska	\$7,020	6	1.0810	\$6.494	2
North Dakota	\$6,752	10	1.0447	\$6.463	3
New York	\$7,957	3	1.2958	\$6.141	4
Hawaii	\$8,208	2	1.3404	\$6.124	5
Minnesota	\$6,615	17	1.1525	\$5.740	6
Connecticut	\$7,740	4	1.3769	\$5.622	7
Maine	\$6,709	11	1.1958	\$5.610	8
Wisconsin	\$6,554	18	1.1884	\$5.515	9
Kansas	\$5,894.8	41	1.0739	\$5.489	10
Michigan	\$6,886	8	1.2547	\$5.488	11
South Carolina	\$6,498	20	1.1990	\$5.419	12
Georgia	\$6,507	19	1.2038	\$5.406	13
South Dakota	\$6,340	25	1.1822	\$5.363	14
Illinois	\$6,676	13	1.2571	\$5.310	15
Indiana	\$6,278	27	1.1853	\$5.296	16
Montana	\$6,113	33	1.1700	\$5.225	17
North Carolina	\$6,251	30	1.1996	\$5.211	18
Massachusetts	\$6,707	12	1.2878	\$5.208	19
Vermont	\$6,390	22	1.2285	\$5.201	20
Missouri	\$6,327	26	1.2221	\$5.177	21
California	\$6,990	7	1.3646	\$5.122	22
New Hampshire	\$6,383	23	1.2641	\$5.049	23
Delaware	\$7,063	5	1.4006	\$5.043	24
Pennsylvania	\$6,396	21	1.2754	\$5.015	25
Colorado	\$6,781	9	1.3542	\$5.008	26
New Jersey	\$6,623	15	1.3236	\$5.004	27
Wyoming	\$5,894.9	40	1.1799	\$4.996	28
Maryland	\$6,616	16	1.3242	\$4.996	29
Virginia	\$6,158	31	1.2506	\$4.924	30
Iowa	\$5,324	47	1.0852	\$4.906	31
Ohio	\$6,356	24	1.2995	\$4.891	32
Washington	\$6,627	14	1.3555	\$4.889	33
Tennessee	\$5,953	38	1.2237	\$4.865	34
Texas	\$6,112	34	1.2574	\$4.860	35
Mississippi	\$5,157	49	1.0647	\$4.844	36
<i>Rhode Island</i>	\$6,269	28	1.2981	\$4.829	37
Kentucky	\$5,603	44	1.1732	\$4.776	38
Louisiana	\$6,118	32	1.2884	\$4.749	39
Oregon	\$5,961	37	1.2615	\$4.725	40
New Mexico	\$5,684	43	1.2310	\$4.618	41
Oklahoma	\$5,357	45	1.1896	\$4.503	42
Arkansas	\$5,132	50	1.1410	\$4.498	43
Idaho	\$5,785	42	1.2887	\$4.489	44
Utah	\$6,063	35	1.3544	\$4.477	45
Alabama	\$5,270	48	1.1989	\$4.396	46
Arizona	\$5,951	39	1.3656	\$4.357	47
West Virginia	\$5,332	46	1.2276	\$4.343	48
Florida	\$5,965	36	1.3748	\$4.339	49
Nevada	\$6,262	29	1.5132	\$4.138	50
<b>New England</b>	\$6,851		1.2685	\$5.401	
<b>United States</b>	\$6,509		1.2602	\$5.165	

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## ***INDIVIDUAL HOSPITAL EXPENSES & REIMBURSEMENT***

As managed care and the Federal Government further constrain reimbursement and the ability of providers to shift costs among payors, hospitals with expensive services may find themselves at a competitive disadvantage.

Table 5 provides a comparison of 1998 individual hospital reimbursement and expenses in RI. Again, these data are case-mix adjusted to standardize for differences in patient populations between institutions (and the calculations were performed according to HCIA methodology). The same interrelationship between expenses and reimbursement seen at the state level also holds for individual hospitals. The two most expensive institutions, Rhode Island Hospital and Memorial Hospital of RI, were the highest reimbursed as well. Likewise, the two least expensive facilities, South County Hospital Healthcare System and Westerly Hospital, received the lowest reimbursement.

One should not conclude that all hospitals lost money in 1998 because the unit-expenses exceeded the unit-reimbursement at each institution (with the exception of South County Hospital Healthcare System).<sup>7</sup> Not included on the revenue side were other proceeds from investments, rentals, consulting, and other non-patient related sources (e.g., cafeteria, gift shops, etc.).

It is in the economic self-interest of hospitals to maximize reimbursement, while minimizing expenses. Payors, on the other hand, seek to minimize hospital reimbursement that also requires low hospital expenses. This positive dynamic will succeed only so long as there are real options for both providers and payors. Concentrated market power on either side could lead to either higher reimbursement (hospital oligopoly<sup>8</sup> or monopoly), or lower reimbursement (payor oligopsony<sup>9</sup> or monopsony), than would otherwise be the case.

**TABLE 5: 1998 HOSPITAL COSTS (UNIT-EXPENSES & UNIT-REIMBURSEMENT)**

Provider	UNADJUSTED				Medicare Case-Mix Index	CASE-MIX ADJUSTED			
	Expense per (Adj.) Discharge	Hospital Ranking (Greatest to Least Amounts)	Reimbursement per (Adj.) Discharge	Hospital Ranking (Greatest to Least Amounts)		Expense per (Adj.) Discharge	Hospital Ranking (Greatest to Least Amounts)	Reimbursement per (Adj.) Discharge	Hospital Ranking (Greatest to Least Amounts)
Kent County Memorial Hospital	\$5,499	8	\$5,141	7	1.295	\$4,247	8	\$3,971	7
Landmark Medical Center	\$5,875	6	\$5,108	8	1.272	\$4,620	4	\$4,016	5
Memorial Hospital of RI	\$8,104	3	\$7,492	2	1.340	\$6,047	2	\$5,590	1
Miriam Hospital	\$8,411	2	\$7,209	3	1.909	\$4,405	6	\$3,776	8
Newport Hospital	\$5,620	7	\$5,208	6	1.307	\$4,300	7	\$3,984	6
Rhode Island Hospital	\$11,015	1	\$9,077	1	1.637	\$6,729	1	\$5,545	2
Roger Williams Hospital	\$6,049	5	\$5,621	5	1.258	\$4,810	3	\$4,470	3
South County Hospital Healthcare Svstem	\$3,921	11	\$4,573	10	1.213	\$3,231	10	\$3,769	9
St. Joseph Health Services	\$6,338	4	\$6,099	4	1.374	\$4,614	5	\$4,440	4
Westerly Hospital	\$4,930	9	\$4,849	9	1.298	\$3,798	9	\$3,735	10
Women & Infants Hospital-1-	\$4,812	10	\$4,381	11	n/a	n/a	n/a	n/a	n/a

-1- Case-mix adjusting by the Medicare Case-Mix was not applicable because Medicare utilization was <5% of total

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## **REFERENCES:**

### Data Sources:

Tables 1 & 3 Calculations: American Hospital Association. Hospital Statistics (2000 Edition).

Table 2 Calculations: *Unadjusted expense per (adj.) discharge*, Hospital Statistics. Ibid.; *Medicare case-mix indices*, HCIA, and Deloitte & Touche LLP. The Comparative Performance of U.S. Hospitals: The Sourcebook. (2000 Edition)

Table 4 Calculations: *Unadjusted reimbursement per (adj.) discharge*, Hospital Statistics. Ibid.; *Medicare case-mix indices*, The Comparative Performance of U.S. Hospitals: The Sourcebook. Ibid.

Table 5 Calculations: Cryan, B. (August 2000). 1999 Hospital Financial Operations Dataset. (Available from the Rhode Island Department of Health, Office of Performance Measurement & Reporting, #407, 3 Capitol Hill, Providence, RI 02908)

### Endnotes:

<sup>1</sup> In 1997, hospital spending comprised 38.3% of all national personal healthcare expenditures, US Census Bureau. (October 1999). Statistical Abstract of the United States – the National Data Book. (119<sup>th</sup> Edition, p. 118)

<sup>2</sup> Adjusted Discharges = (discharges x (total gross patient revenue / gross inpatient revenue)), source: The Comparative Performance of U.S. Hospitals: The Sourcebook. Ibid.

<sup>3</sup> In 1998, 40.5% of all activity in RI's general, acute-care hospitals was outpatient care, 1999 Hospital Financial Operations Dataset. Ibid. (p. 6)

<sup>4</sup> (Statistic / Medicare case-mix index), same methodology employed by HCIA (a national healthcare information firm) to case-mix adjust a statistic; HCIA reports that the Medicare case-mix index is a good approximation of the overall case-mix at a hospital. The Comparative Performance of U.S. Hospitals: The Sourcebook. Ibid. (p. 17)

<sup>5</sup> The Outpatient (Equivalent) Discharge provides a single measure of all outpatient activity at a hospital, and is calculated: (((total gross patient revenue – gross inpatient revenue) / gross inpatient revenue) x inpatient discharges) based on calculations for Adjusted Discharges (see <sup>2</sup> above)

<sup>6</sup> There is debate over whether hospitals are price (reimbursement) takers or price makers; with Medicare (a price setter) accounting for ~40% of hospital volume, and Medicaid (a price setter in some states) accounting for ~10% of hospital volume, it appears that hospitals, in the right circumstances, have a modicum of control over prices

<sup>7</sup> In 1998, 4 of 11, RI general, acute-care hospitals made an operating profit, and 3 of the other 7 lost <\$500k each. 1999 Hospital Financial Operations Dataset. Ibid.

<sup>8</sup> Situation in which a few providers have enough market power to each affect, but not control, prices (tends to increase reimbursement for services)

<sup>9</sup> Situation in which a few payors have enough market power to each affect, but not control, prices (tends to decrease reimbursement for services)

# APPENDIX: 1998 DATA INPUTS FOR TABLES 1-4

	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-
	Inpatient Discharges	Total Gross Patient Revenue (millions)	Gross Inpatient Revenue (millions)	Total (Adj.) Discharges (1*(2/3))	Outpatient (Equivalent) Discharges (4-1)	Population (thousands)	Net Patient Revenue (millions)	Total Expenses (millions)	Medicare Case-Mix Index
Alabama	644,283	\$11,768	\$8,129	932,647	288,364	4,352	\$4,915	\$5,096	1.1989
Alaska	41,294	\$990	\$617	66,280	24,986	614	\$626	\$590	1.1841
Arizona	495,155	\$9,424	\$6,672	699,394	204,239	4,669	\$4,162	\$4,146	1.3656
Arkansas	358,068	\$5,582	\$3,587	557,231	199,163	2,538	\$2,860	\$2,802	1.1410
California	3,170,435	\$73,304	\$52,607	4,417,780	1,247,345	32,667	\$30,879	\$32,167	1.3646
Colorado	373,257	\$7,495	\$4,874	574,012	200,755	3,971	\$3,892	\$3,797	1.3542
Connecticut	330,091	\$6,498	\$4,282	500,867	170,776	3,274	\$3,877	\$4,061	1.3769
Delaware	84,319	\$1,321	\$866	128,596	44,277	744	\$908	\$962	1.4006
Florida	1,947,024	\$40,754	\$28,064	2,827,465	880,441	14,916	\$16,866	\$16,742	1.3748
Georgia	821,895	\$15,268	\$9,942	1,262,222	440,327	7,642	\$8,214	\$7,935	1.2038
Hawaii	97,717	\$2,224	\$1,555	139,733	42,016	1,193	\$1,147	\$1,208	1.3404
Idaho	115,248	\$1,654	\$1,028	185,334	70,086	1,229	\$1,072	\$1,005	1.2887
Illinois	1,466,273	\$30,024	\$19,762	2,227,655	761,382	12,045	\$14,871	\$15,468	1.2571
Indiana	704,396	\$11,983	\$7,344	1,149,312	444,916	5,899	\$7,215	\$7,193	1.1853
Iowa	374,245	\$5,314	\$3,156	630,181	255,936	2,862	\$3,355	\$3,453	1.0852
Kansas	299,701	\$5,321	\$3,395	469,826	170,125	2,629	\$2,770	\$2,712	1.0739
Kentucky	551,325	\$9,181	\$5,935	852,912	301,587	3,936	\$4,779	\$4,790	1.1732
Louisiana	637,892	\$11,377	\$7,549	961,349	323,457	4,369	\$5,882	\$5,875	1.2884
Maine	144,363	\$2,280	\$1,422	231,534	87,171	1,244	\$1,553	\$1,529	1.1958
Maryland	564,913	\$6,922	\$4,945	790,663	225,750	5,135	\$5,231	\$5,306	1.3242
Massachusetts	738,018	\$15,909	\$9,197	1,276,606	538,588	6,147	\$8,562	\$10,315	1.2878
Michigan	1,104,883	\$22,901	\$13,736	1,842,157	737,274	9,817	\$12,685	\$12,920	1.2547
Minnesota	515,813	\$9,087	\$5,968	785,422	269,609	4,725	\$5,195	\$5,265	1.1525
Mississippi	413,907	\$5,908	\$3,975	615,178	201,271	2,752	\$3,173	\$3,139	1.0647
Missouri	741,816	\$14,427	\$9,230	1,159,494	417,678	5,439	\$7,336	\$7,576	1.2221
Montana	97,345	\$1,460	\$859	165,460	68,115	880	\$1,011	\$1,003	1.1700
Nebraska	192,313	\$3,358	\$2,195	294,182	101,869	1,663	\$2,065	\$1,989	1.0810
Nevada	171,158	\$3,602	\$2,744	224,684	53,526	1,747	\$1,407	\$1,392	1.5132
New Hampshire	108,942	\$2,025	\$1,132	194,888	85,946	1,185	\$1,244	\$1,250	1.2641
New Jersey	1,082,668	\$21,730	\$16,318	1,441,699	359,031	8,115	\$9,548	\$10,411	1.3236
New Mexico	157,875	\$3,067	\$1,685	287,332	129,457	1,737	\$1,633	\$1,599	1.2310
New York	2,364,608	\$47,691	\$33,644	3,351,861	987,253	18,175	\$26,672	\$29,269	1.2958
North Carolina	907,911	\$14,068	\$9,313	1,371,421	463,510	7,546	\$8,573	\$8,365	1.1996
North Dakota	85,176	\$1,700	\$947	152,840	67,664	638	\$1,032	\$1,053	1.0447
Ohio	1,355,186	\$24,316	\$15,196	2,168,443	813,257	11,209	\$13,782	\$14,354	1.2995
Oklahoma	391,243	\$6,312	\$4,208	586,864	195,621	3,347	\$3,144	\$3,218	1.1896
Oregon	313,350	\$4,763	\$2,933	508,794	195,444	3,282	\$3,033	\$3,095	1.2615
Pennsylvania	1,752,298	\$38,191	\$25,637	2,610,397	858,099	12,001	\$16,695	\$17,562	1.2754
Rhode Island	117,320	\$2,327	\$1,393	195,950	78,630	988	\$1,228	\$1,278	1.2981
South Carolina	457,347	\$8,300	\$5,600	677,895	220,548	3,836	\$4,405	\$4,348	1.1990
South Dakota	96,055	\$1,279	\$864	142,237	46,182	738	\$902	\$924	1.1822
Tennessee	744,913	\$13,207	\$8,743	1,125,206	380,293	5,431	\$6,698	\$6,531	1.2237
Texas	2,227,166	\$43,387	\$29,473	3,278,646	1,051,480	19,760	\$20,038	\$20,579	1.2574
Utah	192,357	\$2,993	\$1,889	304,816	112,459	2,100	\$1,848	\$1,826	1.3544
Vermont	50,076	\$955	\$555	86,140	36,064	591	\$550	\$573	1.2285
Virginia	716,976	\$12,267	\$8,168	1,076,684	359,708	6,791	\$6,630	\$6,294	1.2506
Washington	474,394	\$8,127	\$5,038	765,290	290,896	5,689	\$5,071	\$5,240	1.3555
West Virginia	280,729	\$4,039	\$2,414	469,676	188,947	1,811	\$2,504	\$2,476	1.2276
Wisconsin	553,810	\$9,327	\$5,787	892,592	338,782	5,224	\$5,850	\$5,900	1.1884
Wyoming	43,833	\$640	\$374	75,018	31,185	481	\$442	\$430	1.1799
New England	1,488,810	\$29,994	\$17,981	2,483,401	994,591	13,430	\$17,015	\$19,006	1.2685
United States	31,811,673	\$609,602	\$407,650	47,571,293	15,759,620	270,299	\$309,633	\$318,834	1.2602

Sources: Columns 1, 2, 3, 6, 7 & 8 "Hospital Statistics -2000", American Hospital Association; Column 9, "The Sourcebook -2000", HCIA